

## **Module1 : End Project**

As a culminating project, you'll be working with a dataset from ABC company, consisting of 458 rows and 9 columns. The company requires a comprehensive report detailing information about their employees across various teams. Your tasks include preprocessing the dataset, analyzing the data, and presenting your findings graphically. Here's a breakdown of what you need to do:

### **Preprocessing:**

- Correct the data in the "height" column by replacing it with random numbers between 150 and 180. Ensure data consistency and integrity before proceeding with analysis. (1 mark)

### **Analysis Tasks:**

- Determine the distribution of employees across each team and calculate the percentage split relative to the total number of employees. (2 marks)
- Segregate employees based on their positions within the company. (2 marks)
- Identify the predominant age group among employees. (2 marks)
- Discover which team and position have the highest salary expenditure. (2 marks)
- Investigate if there's any correlation between age and salary, and represent it visually. (2 marks)

### **Graphical Representation:**

- For each of the five analysis tasks above, create appropriate visualizations to present your findings effectively. (5x2 = 10 marks)
- Data Story: Provide insights gained from the analysis, highlighting key trends, patterns, and correlations within the dataset. (3 marks)
- Timely Submission: Ensure timely submission of your project to earn an additional mark. (1 mark)

### **Total Marks : 25**

By completing these tasks, you'll not only demonstrate your proficiency in Python programming but also your ability to analyze and communicate insights from

real-world data. Download the dataset from this link. (Please find the attachment):

[https://docs.google.com/spreadsheets/d/1aDiNQMStFPyY7mJEgt2sIAApFrG2uE19/edit?usp=drive\\_link&oid=110420460158510759989&rtpof=true&sd=true](https://docs.google.com/spreadsheets/d/1aDiNQMStFPyY7mJEgt2sIAApFrG2uE19/edit?usp=drive_link&oid=110420460158510759989&rtpof=true&sd=true)

- To submit the project:
  - Create a repository on your GitHub account.
  - Write a comprehensive overview of the project in the README file, summarizing the preprocessing steps, analysis tasks, graphical representations, insights gained, and any additional information.
  - Upload a well-organized Jupyter Notebook file containing the code for the project, ensuring proper formatting and documentation.
  - Include the dataset in the repository.
  - Submit the link to your repository in the designated section on the app.
- Best of luck, and feel free to reach out if you have any questions or need assistance along the way!